

Melting diagram of the system ...

S/020/62/142/005/018/022
B110/B101

melting at 385°C. In the heating curves, additional irreversible heat effects occur (1) at 100°C, removal of traces of adsorbed water, and (2) in the course of an intermediate stage of the establishment of phase equilibrium in the solid and, partly, in the liquid state. Therefore, the cooling curves of mixtures heated to < 690°C were used for plotting the melting diagram. The melting diagram (Fig. 1) for KOH-KBH₄ consists of two branches of crystallization of KOH and KBH₄ intersecting in the eutectic at 347°C and 5.3 % KBH₄ concentration. The constant temperature of ~245°C corresponding to polymorphous KOH conversion in the part of the system rich in KOH proves the absence of solid solutions based on KOH. A slight H₂ separation is observed between 450 and 550°C, the maximum of which corresponds to the equimolar ratio of components. When the melts are dissolved, H₂ is also separated, sometimes with inflammation, particularly in the central part of the system, probably due to: KBH₄ + KOH → KBH₃OH + KH. ✓
The dissociation pressure of KH attains atmospheric pressure at ~428°C, and the violent reaction with water causes ignition. Thus, the system KOH-KBH₄ is a pseudobinary cross section of a quaternary system. The Card 2/4

Melting diagram of the system ...

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double melts of the central part have properties and activity of KH at temperatures that lie high above the range of its stability in a pure state. There are 1 figure and 6 references: 4 Soviet and 2 non-Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry imeni N. S. Kurnakov of the Academy of Sciences USSR)

PRESENTED: September 11, 1961, by I. I. Chernyayev, Academician

SUBMITTED: September 6, 1961

Fig. 1. Melting diagram for KOH - KBH_4 . Legend: (1) Temperature; (2) % by weight; X = liquid.

Card 3/4

MIKHEYEVA, V.I.; SELIVOKHINA, M.S.; KRYUKOVA, O.N.

Melting diagram in the system potassium hydroxide - potassium borohydride.
Zhur.neorg.khim. 7 no.7:1622-1627 Jl '62. (MIRA L6:3)
(Potassium hydroxide) (Potassium borohydride)

L 10658-63

EWP(q)/EWT(m)/BDS---AFFTC/ASD---JD/JXT(IJP)

ACCESSION NR: AP3001211

S/0078/63/008/006/1314/1319

AUTHOR: Mikheyeva, V. I.; Sterlyadkina, E. K.; Konstantinova, A. I.; Kryukova, O. N.

TITLE: Absorption of hydrogen by alloys of cerium with magnesium

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 6, 1963, 1314-1319

TOPIC TAGS: absorption; hydrogen; alloys; cerium; magnesium

ABSTRACT: Hydrogen absorption by cerium-magnesium alloys was investigated: alloys having more than 50 atm % Mg did not hydrogenate at room temperature; in alloys containing up to 30% Mg, the Ce appears to be preferentially hydrogenated; in the 30-50% Mg range, absorption corresponds to the formula $\text{CeH}_{\text{sub } 3} \cdot n\text{MgH}_{\text{sub } 2}$, in particular, $\text{MgH}_{\text{sub } 2} \cdot 2\text{CeH}_{\text{sub } 3}$ and $\text{Mg H}_{\text{sub } 2} \cdot \text{CeH}_{\text{sub } 3}$. Increase in Mg from 0-50% increases the induction period and hydrogenation time. If reaction is carried out at elevated temperature, alloys having up to 66% Mg can be hydrogenated but amount of H absorption is decreased. According to chemical and thermographic examination, the hydrogenation products are mechanical mixtures of the hydrides whose properties are distinct from those of $\text{MgH}_{\text{sub } 2}$ and $\text{CeH}_{\text{sub } 3}$ taken separately. Orig. art. has: 4 figures and 2 tables.

Card 1/2

L 10658-63

ACCESSION NR: AP3001211

2

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova,
Akademii nauk SSSR (Institute of General and Inorganic Chemistry, Academy of
Sciences, SSSR) Laboratoriya khimii gidradov i bora (Laboratory of Hydrides and
Boron Chemistry)

SUBMITTED: 06Jul62

DATE ACQD: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF Sov: 006

OTHER: 007

kes/bm
Card 2/2

"APPROVED FOR RELEASE: 04/03/2001

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DEGTYAREVA, O.F.; FEDYAYEVA, N.V.; OSTROVSKAYA, M.F.; prinimali uchastiye:
PROSKURYAKOVA, A.Ye.; KRYUKOVA, P.A.; ASTAKHINA, L.G.

Spectral analysis of iron oxide by the vaporization method.
Zav.lab. 27 no.7:842-844 '61. (MIRA 14:7)
(Iron oxide--Spectra)

DEGTYAREVA, O.F.; FEDYAYEVA, N.V.; OSTROVSKAYA, M.F.; ASTAKHINA, L.G.;
prinimali uchastiye: KRYUKOVA, P.A., PROSKURYAKOVA, A.Ye.

Determination of impurities in copper oxide by the spectral
method. Zav.lab. 27 nq,?;844-845 '61 . (MIRA 14:?)
(Copper oxide--Spectra)

USSR/Chemical Technology. Chemical Products and Their Application -- Food industry,
I-28

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6732

Author: Vetrova, Z. I., Tsyplakova, G. I., Kryukova, P. I.

Institution: None

Title: Cooling of Horse Mackerel in Refrigeration Plants

Original

Publication: Ryb. kh-vo, 1956, No 4, 10-11

Abstract: Investigation of different procedures of cooling horse mackerel. Most appropriate is liquid cooling in water at 0-4°, which reduces the duration of cooling to 30-40 minutes, and also the consumption of ice to 50% of the weight of the fish. Numerous experiments in full scale operation have shown the appropriateness of the use of chlorinated water. Best results were obtained on addition to the water of chlorinated ice containing 150 mg active chlorine per 1 liter of thaw water. Mackerel cooled in sea water with addition of such ice exhibited good characteristics.

Card 1/1

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CIA-RDP86-00513R000826920007-7"

MIRSKIY, Mark Borisovich; KRYUKOVA, S.N., red.; NAZAROVA, A.S.,
tekhn. red.

[How to build up a child's health] Kak ukrepit' zdorov'e re-
benka. Moskva, Izd-vo "Znanie," 1962. 47 p. (Narodnyi uni-
versitet kul'tury: Fakul'tet zdorov'ia, no.5) (MIRA 15:8)
(CHILDREN--CARE AND HYGIENE)

MARSHAK, Maks Solomonovich, prof.; KRYUKOVA, S.N., red.;
ATROSHCHENKO, L.Ye., tekhn. red.

[Vitamins and health] Vitaminy i zdorov'e. Moskva, Izd-
vo "Znanie," 1963. 39 p. (Narodnyi universitet kul'tury:
Fakul'tet zdorov'ia, no.10) (MIRA 17:1)

1132
PROCESSES AND PREPARATIONS

Determination of yellow and red phosphorus and its oxidation products. T. A. KRIUKOVA (Zavod. Lab., 1937, 6, 47-51).—Yellow P is extracted with CS₂, and determined as Mg₂P₂O₇. The residue is extracted with H₂O, and H₃PO₄, H₃PO₃, and H₃PO₂ are determined in the extract by known methods. The residue is boiled with N-AgNO₃ for 2 hr., and excess of AgNO₃ not reacting with P₂O₅ is titrated. Red P is calc. by difference. R. T.

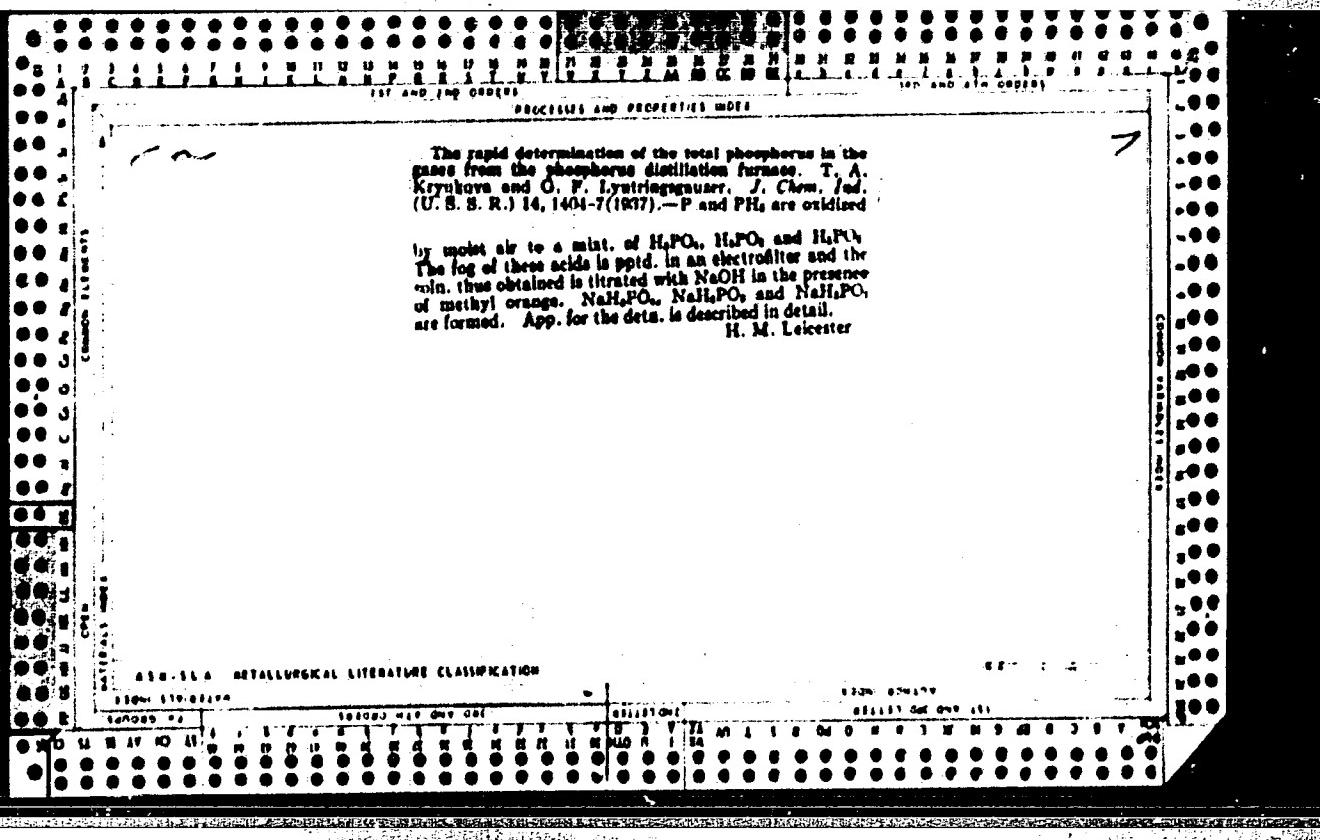
430 314 METALLURGICAL LITERATURE CLASSIFICATION

PROSPECTIVE AND PREDICTIVE INDEX

17-1

Polarographic determination of lead and arsenic in reagent phosphoric acid. T. A. KAYKOVA (Zavod. Lab., 1937, 8, 1343-1343). The polarographic determination of traces ($>0.0001\%$) of Pb and As in H_3PO_4 is performed most conveniently in the presence of conc. H_3PO_4 . Methods of determining Pb and As separately or in the presence of each other are described; in the latter case HCl must be added. Since As^{+++} is not reducible in H_3PO_4 , but can be converted into As^{+3} by boiling with NH_4I , both ions can be determined. The effect of admixtures is discussed and limits are given for permissible contents of Ca^{++} , Fe^{+++} , Al^{+++} , F^- , SO_4^{--} , K^+ , Na^+ , and BO_3^{--} . The results are accurate to within $\pm 3\%$ for Pb and $\pm 5\%$ for As. Diagrams and tables are given.

D.G.



PROCESS AND PROPERTIES OF

The rate of crystallization of ferric phosphates from supersaturated solutions. M. I. Chibalevskii and L. A. Klyukova. *Trans. Soc. Ind. Fertilizers and Fertilizers* (U.S.S.R.) No. 137, 102 (1967). Fe(OH)_3 and H_3PO_4 were used in preparing the Fe phosphates for study at 30°C . The crystal curves are divided into three: latent, rapid crystal, and residual crystal. There is a definite logarithmic relation between the latent period and the ratio: $\log t = (\alpha/A) - b$, where t is time of the latent period, A is a constant, and a and b are constants. Addition of crystals of Fe phosphate practically eliminates the latent period. This period is also reduced by the addition of alkalis and other constituents. J. S. Joffe.

44-554 METALLURGICAL LITERATURE CLASSIFICATION

Polarographic determination of arsenic and iron in concentrated sulfuric acid. T. A. Kryukova, Zavodskaya Lab. 7, 273-9 (1958).—A 20-g. sample in a little water is neutralized with Na₂CO₃ to methyl orange and then is diluted with 2% of pure H₂SO₄ to 100 ml. As ⁺⁺⁺ is detd. in 10 ml. of the soln. in the presence of a slight excess of K₄tauro- and Fe ⁺⁺ is detd. in another aliquot part by the method of Dymov, et al. (C. A. 51, 6130). Chas. Blanc.

ASQ-11A METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000826920007-7"

BC
2-1

Oxidation of phosphorus at solid surfaces.
T. A. MAJUKOVA (J. Gen. Chem. Russ., 1939, 9, 577-586).—The process of oxidation by atm. O₂ or oxygenized air of yellow P finely distributed on SiO₂ powder at 20° involves the stages P → P₂O → P₂O₃ → P₂O₅ → P₂O₁₀. The ratio of P₂O to P₂O₅ in the final reaction product is 2 : 3. The mechanism of the reaction is discussed.
R. T.

Determination of solubility of sparingly soluble salts with the polarograph. T. A. КАЛЮКОВА (J. Phys. Chem. Russ., 1939, 13, 693-700).—The experimental technique is described. The solubilities of Hg^+ salts may be calc. from the anode potential in the anodic polarization of the dropping electrode.

410.164 METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000826920007-7"

CA

PROCESSES AND PROPERTIES

4

Changes in the reduction potentials of lead, cadmium and zinc, depending on the concentration of the electrolyte. A. A. Kryukova. Trudy Vsesoyuzn. Konferentsii Khim. Khim.-Tekhnicheskikh Nauch.-Issledovaniy. Kibernetika. 1960, No. 2, 66.—Increasing the content of chlorine considerably displaces the reduction potential of Pb, Cd and Zn in the neg. direction. Omitting expts. indicate that there exists a nearly linear relation between the reduction potential and the log of the activity of the electrolyte.

W. R. Henn

ASSISTANT BIBLIOGRAPHICAL LITERATURE CLASSIFICATION

ca

6

Oxidation of phosphorus on solid surfaces. T. A. Kyukura, J. Org. Chem. (U. S. S. R.) 9, 577 (1959).
Yellow P, deposited in the amt. of 0.85-1.32% on finely ground quartzite, is completely oxidized with air at 20° and also "preserves" its P₂N, P₂N₃, P₂N₅ and P₂N₇. The ratio of P₂O to P₂N in the final reaction product is always 2:3; thus the formation of the two complex is related. The oxidation, which occurs chiefly within a period of 3-5 min., is preceded by a period of activation, ranging from 30 min., when the deposition of P is 1.32%, to 30 hrs. for 0.85% P. If O₂ is used as oxidizing agent the activation period is eliminated and, in addition, P₂O is completely oxidized to P₂O₅. The amt. of P₂O₅ remains unchanged. To prove its identity P₂O was prepd. by the method of Michaelis and Pisch (Ber. 32, 137 (1900)). The mechanism of the oxidation is discussed.

Theoretical problems in the practical polarographic work. T. A. Krikova (Zavod. Lab., 1944, p. 681-694).—Some difficulties of polarography are reviewed, including the polarographic man., its dependence on the movement near the electrode and on the concentration of the supporting electrolyte, the extinguishing of the max. and the secondary effects of the extinguishing substance, the influence of the concn. of the supporting electrolyte on the position and shape of polarographic waves, polarographic waves of ions reducible in steps, and also substitution of solid cathodes for Hg drops.

J. J. B.

CA

2

Polarographic determination of the solubilities of slightly soluble salts. T. A. Kyukham. *J. Phys. Chem.* (U.S.R.) 13, 693-700 (1959).—Kapil. data are given on the kinetics of crystallization of PbSO_4 from H_2SO_4 solns. and of PbHAsO_4 from $\text{CaHAsO}_4 + \text{HCOOH}$ solns. The polarographically detd. solubilities of PbSO_4 in H_2O are 0.0185 g./l. for 0.049 g./l. H_2SO_4 ; 0.0089, 0.046; 0.0042, 4.90; / 0.0146, 49.0. From measurements on the anode polarizations of a drop electrode, the solubilities of Hg^{+} salts at 25° are: IO_3^- , 6.0; PO_4^{3-} , 3.5; CNS^- , 2.7; OH^- , 0.082; CO_3^{2-} , 0.0088; SO_4^{2-} , 0.00018; all $\times 10^{-4}$; and CN^- , 8.1×10^{-14} ; $\text{S}_2\text{O}_8^{2-}$, 2.2×10^{-4} ; S^{2-} , 3.8×10^{-13} . The drop-electrode method is 10 times as rapid as the direct concn. detd. method, and the results differ at most by a factor of 3.

F. H. Rathmann

Sci.-Inst. Fertilizers, Insecticides, Lab. of Production Supervision

AIA-11A METALLURGICAL LITERATURE CLASSIFICATION

SEARCHED	INDEXED	FILED	SEARCHED												INDEXED												
			JAN 1969				MAY 1969				JUN 1969				JULY 1969				AUG 1969				SEPT 1969				OCT 1969
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Relation between the height of the polarographic wave of a cation and the concentration of the background. T. A. Kritikova (Zavod Zashchity Tsvetnykh Metallov, Moscow, U.S.S.R.).—The height of the polarographic wave of, say, 0.0004M-Pb²⁺ in KCl solution depends on [KCl]. This is due to movements of solution near Hg drops as the rate v of the movement depends on the nature and concn. of the "background electrolyte." If this concn. is >1M., v is independent of the salts present in small concns. The current increase ΔI due to v is $\propto vC$, C being the concn. of, say, Pb²⁺. If v for a given background electrolyte is known for all polarising voltages, C can be calc. by measuring the height of the Pb wave without and in presence of platinum which reduces v to zero. The calculation gives correct results for Pb, Cd, Mn, Co, Fe, Cr, and Th in saturated KCl.

J. J. R.

ca

9

Appearance and end of the motion of electrolytes in a dropping mercury cathode. I. A. Kabanova and B. N. Kalinov. J. Russ. Chem. Soc. 1913, 11, 114-127 (1909).--K. describes a method for observing the motion of an electrolyte in a drop electrode by means of suspended charcoal particles. From exptl. data K. and K. find that as a result of unequal polarization of the drops when a p. d. exists in the soln., an upward or downward motion takes place, at potentials corresponding, resp., to the cathode and anode branches, and ceases when the max. potential of the electrocapillary curve is reached. Upward motion ceases at -2.122 v. and is accompanied by H₂ evolution. For large potential drops, upward motion also occurs in the anode branch. Motion may also cease owing to the formation of hydrated oxide gels of metals as in the case of Fe^{III}, Pb^{II}, Cd^{II}, Cu^{II}, Ni^{II}, Co^{II}, Mn^{II}, Al, La, Ce, etc., either at the limitation (depolarization) potential of O₂ or on evolution of H₂. In cases in which motion does not cease, a max. current is observed.
F. H. Rathmann

Ca

7

Theoretical problems in the practical applications of polarography. T. A. Kryukova. Zavodskye Lab. 9, 601-8(1940).—A review of the literature dealing with (1) nature of the mass, on the polarographic wave and its elimination, (2) displacement of the potential of the half-wave of the cation, (3) complexity of the electrode processes and (4) substitution of metals for Hg electrodes. Eighteen references. D. Z. Kamach.

ASA-51A METALLURGICAL LITERATURE CLASSIFICATION

CA

PROCESSED AND PROPRIETARY

Reduction of trivalent arsenic by the dropping mercury electrode. T. A. Kryukova. Zemstvye Lab. 9, 9307 (1940).—Polarograms of the reduction of As are obtainable in acid soln. but not in alk. or neutral. The curve for As in complex with inorg. acids but simple with org. and very dil. inorg. acids. Polarograms should be taken for very dil. inorg. acids. The first wave in the curve is due to reduction of As^{III} , while the 2nd and 3rd waves correspond to the reduction of H_3AsO_3 and As_2O_3 . Under some conditions it is possible to obtain a fourth wave due to reduction of As to As^{II} , which increases the sensitivity of the polarographic method 10-fold. The potentials of the reduction of these compounds become more neg. as the As concen. increases and the acid concen. decreases. The wave corresponding to the reaction $As \rightarrow As^{II}$ cannot be obtained in solns. of strong acids, nor in some org. acids (acetic) nor in the presence of such substances as Pt, Au, Mg, NO_3^- , NO_2 , AsO_4^{3-} and others which are reduced on the cathode or which liberate H_2 at a more pos. potential.

B. Z. Kainich

APPENDIX METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Movement of solution near a drowning cathode. II. Velocity of movement of solution and increase of the current strength on the polarographic curve "current strength-voltage." T. A. Kruskaya and N. N. Kabanov (*J. Phys. Chem. Russ.*, 1941, 15, 476-480). The additional current strength due to the stirring of the solution by the expanding big drop is $\propto \text{the } c \text{ living the conc. of the ions which are reduced at the cathode, } I \text{ their mobility, and } v \text{ the velocity of the solution near the drop; } v \text{ is determined by observing graphite particles suspended in the solution. This proportionality is confirmed for Cd, Pb, Mn, Co, Cu, Fe, Cr, and Th ions in conc. KCl solution. J. J. B.$

Motion of solution near the dropping mercury electrode
III. Motion in concentrated solutions of foreign salts
and formation of false waves on the polarographic curve
T. A. Kryukova and B. N. Kabanov (Moscow Inst. of
Refining and Metallurgy), *J. Gen. Chem. (U.S.S.R.)* 13,
394-392 (1943) (English summary); cf. *Izv. Akad. Nauk S.S.R.* 1943, No. 1, p. 36.
A study was made of the rate of motion of
salt near the Hg drop as dependent on potential, dropping
rate of Hg and the capillary dimensions. It was shown
that in the presence of concn. foreign salts the motion of

salt near the dropping electrode is primarily affected by
the motion of Hg in the drop caused by the effusion from
the capillary. This motion produces a considerable in-
crease of the final current which can attain 8 times the
magnitude of that obtained in a soln. kept quiescent.
The rate of this motion varies with the potentials applied;
hence it causes a false wave in the polarographic curve.
The effect can be lessened by proper selection of capillary
dimensions and the rate of Hg outflow. Drifters shaped as
very long cones appear to have the best characteristics
(G. M. Knoblauch)

APPENDIX METALLURGICAL LITERATURE CLASSIFICATION

7

Effect of the adsorption of surface-active substances on the movement of drops during the flow of mercury from a dropping electrode. T. A. Kryukova. *J. Phys. Chem.* (U.S.S.R.) 20, 1179 M(1946)(in Russian). Addn. of surface-active compds. (amyl alk., phenol, methylene blue, K oleate) to 0.001 N PbCl_2 + wtd. KCl lowers the first part of the polarographic wave and often simulates an addnl. wave. Similar effects are shown by starch, gelatin, agar, andaponin in various electrolytes. The explanation is: in the growing drop the Hg surface moves up. This causes concn. of adsorbed surface-active substances near the upper part of the drop (i.e., its base). Consequently, the upper part has a lower surface tension than the lower part, and this difference in surface tensions works against the rising of the surface. In this manner the stirring caused by surface movements is reduced, and so is the diffusion current. At high charges of the drop the adsorption is so small that the surface movements of Hg proceed undisturbed. The concns. of surface-active substances required to influence these movements at low charges are very small; e.g., 10^{-4} M/l. of *A*-naphthol, filtration through a paper filter or a brief immersion of a clean rubber stopper into the soln. suffices to distort the polarographic wave. J. J. Liberman

ASR-5A - OFFALCONGRAPHIC LITERATURE CLASSIFICATION

Polarographic maximums of the first and the second kind. T. A. Eryukova (Acad. Sci. U.S.S.R., Moscow). *J. Phys. Chem. (U.S.S.R.)*, 21, 365 (1917) (in Russian), cf. C.A. 10, 3342. — Polarographic max. of the first kind are caused by the nonuniform polarization of different parts of the Hg drop. The max. of the second kind are due to stirring of the electrolyte caused by the growth of the Hg drops. This stirring is reduced by the elec. charge on the drop, cf. Frumkin and Lebed, C.A. 10, 6014^a, hence it has the greatest intensity at the electrocapillary max. It is greater the more concn. the electrolyte soln. If Hg drops fall rapidly in $Hg_2(No_3)_2 \cdot KNO_3$ soln. and the concen. of KNO_3 is raised, the intensity of stirring passes through a min.: at small KNO_3 concens. it decreases with concen. because the nonuniform polarization decreases, and at high KNO_3 concen. it increases because the braking by elec. charges on Hg diminishes. The simultaneous action of both mechanisms produces complicated movements of the Hg surface, discussed in the original paper. J. J. Bikerman

J. J. Bikerman

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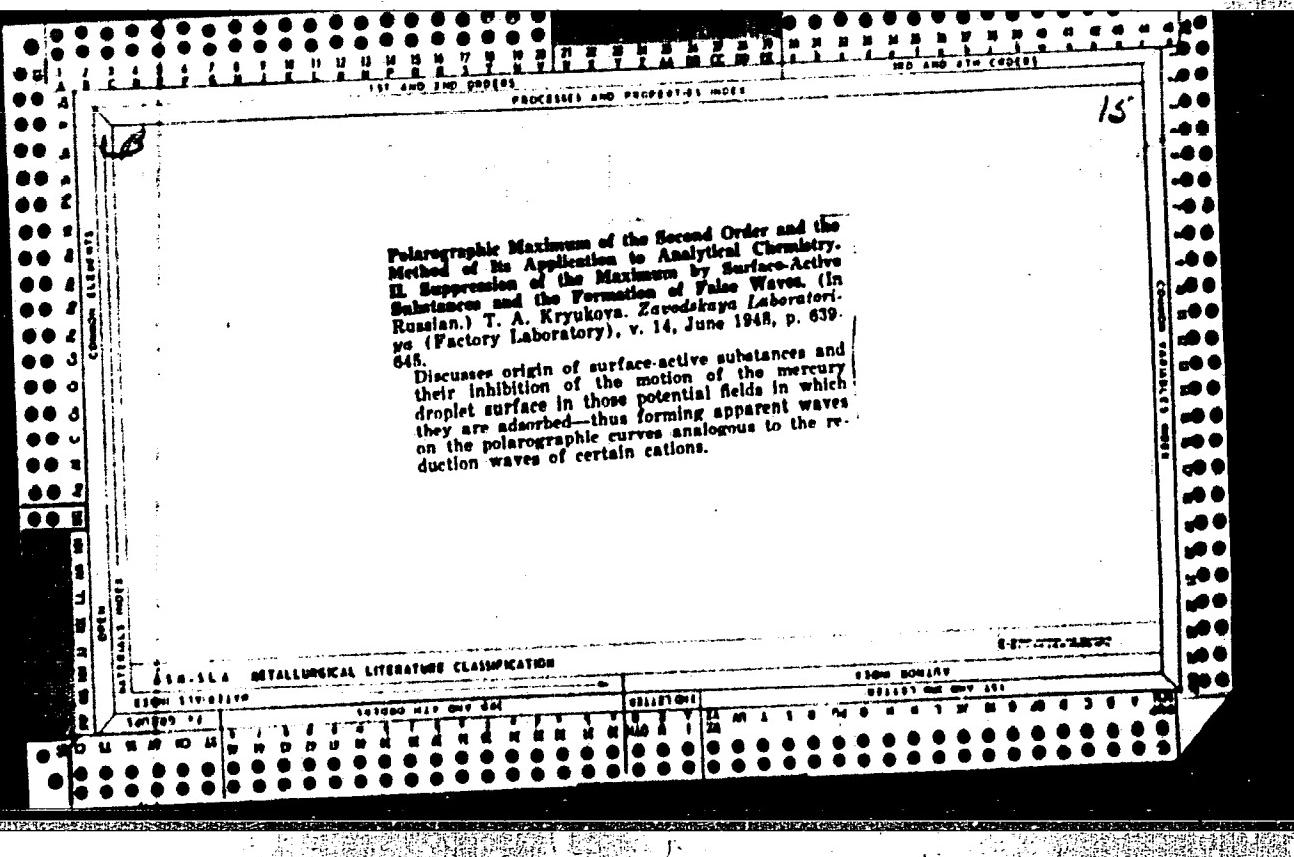
Influence of adsorption on the surface motion of droplets moving. T. A. Kryukova (Akad. Nauk, Moscow). *Izv. Physichesk. U.R.S.S.*, 22, 341-341 (1947) (in English). *Bre. C.R.*, 41, 3344. A. K. P.

Grad. Physical Chemistry 10312

110-300 METALLURGICAL LITERATURE CLASSIFICATION

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CA

7

Polarographic maximum of the second kind and its utilization in analytical chemistry. III. T. A. Kravkova, *Zvezdnye Lab.* 14, 707-72 (1948); cf. *C.A.* 41, 4971d.— To obtain a max. suitable for analytical purposes, it is necessary to use concd. solns. of strong electrolytes contg. reducible ions. For drtg. the purity of water, a soln. of

3 N KCl + 3 × 10⁻⁴ N HgCl₂ is suitable. This soln. was used in an improved type cell (*C.A.* 40, 3145). Hg was passed in for 3-4 hrs., the Hg outflow was then raised to increase the diffusion current 1.5-2 times, and the polarogram was recorded. Curves were obtained of the above soln. in pure water and in water contg. 10⁻⁴ mols./l. of 2-naphthol, 10⁻³ mols. of octyl alk., and 0.01% gelatin, with and without the correction for the charging current. In drtg. the purity of slightly impure waters, this correction must be applied. The charging current can be detd. by recording the curve in the absence of Hg, O₂, and any other substance capable of being reduced. To avoid this tedious work of purification, it can be calcd. from $i = e 0.83 N p^{-1}$ where e is charge of the surface, N is the number of drops falling per sec., and p is the wt. of a drop. As little as 10⁻⁴ mols. of surface-active substances can be detd. A diagram of the cell and polarographic curves are shown.

B. Z. K.

Retardation of tangential movements of the surface of mercury drops by benzyl alcohol solutions. T. A. Kryukova and A. N. Frumkin. *Zhur. Fiz. Khim.* 23, 1919-27 (1949).—Hg is dropped from a glass capillary, radius 0.001 cm., into 3 N KCl + 0.01 M HgCl₂ at the rates (v) of 1 drop in 0.6 or 2.2 sec. It was cathodically polarized. At, e.g., -0.0 v., against an HgHgCl/Hg electrode the limiting current strength I_0 was 6.7 or 14.1 microamp. at the above rates of flow. When the tangential movement of the drop surface was stopped by addn. of gelatin, the current (i_0) became 2.3 and 4.0. When BuOH (I) was added instead of gelatin, the current was reduced; minima of this current (i_0) were observed in 0.13 M I and at about -0.7 v. At c.m.f. less than -0.4 v. and above -1.4 v. the effect of I was very small. From the values of i_0 , i , and v the rate of tangential movement of the drop can be calcd., cf. Frumkin and Levich, *C.A.* 43, 22446. The retardation of this movement by I is semi-quantitatively accounted for by assuming that the diffusion of I toward the growing tip drop is the rate-dec. factor. The diffusion mechanism is confirmed by the effect of v on the degree of retardation; if the adsorptive process were the slowest part of the reaction, the retardation would have been independent of v ; this gives the lower limit for the rate of the adsorption process. For the above calcn., the adsorption of I by Hg at different c.m.f. was needed. It was detd. from new measurements of the electros capillary curve of Hg in 3 N KCl without and in the presence of I (0.010-0.1 M).

J. J. Bikerman

J. J. Bikerman
Statistical Physical Chemistry, a susse

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000826920007-7"

KRYUKOVA, T. A.

TA 41/4977

USSR/Chemistry - Peroxydisulfates,
Reduction of
Chemistry - Reactions, Electro-
chemical

Apr 49

"The Reduction of Persulfate in a Dropping HG-
Cathode and the Effect of the Electric Field
in the Neighborhood of the Electrode Surface-
Charges Upon the Course of Electrochemical Re-
action," T. A. Kryukova, Inst Phys Chem, Acad
Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXV, No 4

Reduction of persulfate anions studied showed

41/4977

USSR/Chemistry - Peroxydisulfates,
Reduction of (Contd)

Apr 49

that action of electrical field around electrode
surface-charges on concentration of reacting
particles is a factor determining course of
electrochemical reaction. Also showed that ap-
pearance of electrochemical barrier caused by
action of the field leads, in certain conditions,
to complete stoppage of the reaction despite
increase of the superimposed polarization.
Submitted by Acad A. N. Frumkin, 5 Feb 49.

41/4977

KELVINTON J. F.

*✓ Adsorption polarographic analysis. T. A. Kozakova
Akad. Nauk S.S.R.: Trudy Inst. Fiz. Akad. Nauk S.S.R.,
Noye Melody Izd. Khim. Industrii, Perekrest. Vysokoi,
122-31 (1959).--The polarographic curves change greatly if
there is a material in the soln. which can be adsorbed.
Such curves are shown for KCl + HgCl₂ in the presence of
BuOH (I), for KCl in the presence of salicylic acid, n-
octyl alc., and tetramethyl ammonium salts. Such ad-
sorbed matter can be a gas too; thus, curves in distd. and
boiled H₂O are quite different. Other materials investi-
gated were methylene blue, nitroso-dimethyl-aniline, 2-
methyltol, and the addn. of KMnO₄ in the presence of ad-
sorbable matter. HCl gave different curves, if used fresh
or after it had been in contact with polyvinyl chloride for
1 month. If the current intensity is plotted vs. the log of
the concn. for all the normal alcs. from C₁ to C₈, a series of
parallel curves is obtained; the curves per se are difficult to
reproduce, as e.g. with I it makes quite a difference whether
the I was used from the bottle, freshly distilled, or doubly
distilled. Unabsorbed material, such as EtOH, has no in-
fluence of itself, but an influence will be noted if O is pres-
ent, which can be adsorbed. Once the conditions have
been standardized, these measurements can be used for
quant. analysis; thus curves are shown in KCl + HgCl₂
for various concns. of BuOH.*

R. J.

Werner Jacobson

CA

Simplified polarographic determination of organic substances of high surface activity in water. IV. T. A. Kryukova (Akad. Sci. U.S.S.R., Moscow). Zhurnal Fiz. Khim. 19, 134-42 (1965); cf. C.A. 64, 57374 - The use of O dissolved in the H₂O under test instead of Hg drops for the production of current, reduces the time to 10-20 min. It is possible to det. surface active sub. present in eq. soln. by the decrease of the current strength caused by retardation of the movement of the surface layers of the Hg drops, if these substances are not oxidized or reduced on the Hg electrode. The results are expressed in arbitrary relative units. Results with octanol, methylene blue, Me₂NCO₂NO, 2-C₁₀H₁₉OH, and various samples of contaminated water are shown graphically.
(I. M. Krasil'shchikov)

C4

Polarographic maxima due to the action of an external electric field. T. I. Popova and T. A. Krysheva (Phys.-

Chem. Inst., Acad. Nauk SSSR, Moscow) *Izv. Akad. Nauk SSSR*, 23, 269-281 (1951).—According to the theory of polarographic max. of Prunakis and Levich (I.P.A., 42, 1266), the velocity (v) of motion of the surface of the dropping electrode passes through a max. for definite values of the pos. and neg. surface charged. Thus, 2 max. on the current-potential curve ought to be observed to the left and to the right, resp., of the electrocapillary zero during the discharge of ions which are reduced at potentials corresponding to the pos. branch of the electrocapillary curve. A neg. max. (that is a max. on the neg. branch) has never been observed so far, heretofore, among other factors, depends on the supply of polarizer to the various parts of the Hg drop. A neg. max. is observed when the supply is made uniform over the electrode surface or when the surface motion is made independent of the electrectrokinetic process; this can be done by a transverse external elec. field applied to the Hg electrode dipping into a very dil. soln. of Hg^{+2} ions acting as indicator of the surface motion. In a soln. of $0.78 \times 10^{-4} N Hg_2ClO_4$ + $0.01 N KClO_4$, only the diff.

over

ion current is recorded in the absence of the external field. When the latter is applied (0.31 to 0.43 v./cm.), 2 max. appear sym. with respect to the potential of zero charge (0.15-0.3 v. to the pos. side and 0.39-0.5 v. to the neg. side). In agreement with the theory, the max. current decreases with decreasing conc. of the soln., the current of the neg. max. depends linearly on the conc. of reduced species. The pos. max. does not depend linearly on concen. for high values of the latter. With large Hg^{++} concen., the sym. shape of the max. are displaced toward more neg. potentials. From Pyrashki's theory, the potentials (in v., relative to a 0.01 N calcd electrode) at which 2 max. are excited, in a 0.018 N $\text{Hg}(\text{ClO}_4)_2$ soln. with a sp. cond. of 2.84×10^{-1} ohm⁻¹ cm.⁻², the calcd. values are -0.62 and -0.72, whereas the observed values of the potential at which the current max. are observed are -0.8 and -0.7, resp.

Michel Bouffet

KRYUKOVA, T. A.

Dissertation "Maxima on the 'Current Potential' Curve and their Significance for Polarographic Analysis." Dr Chem Sci, Inst for Physical Chemistry, Acad Sci USSR, Moscow 1953

W-30928

SO: Referativnyy Zhurnal, No. 5 Dec 1953, Moscow, AN USSR (EX-9000)

KRYUKOVA, T. A.

Chloroform

Adsorption of surface-active substances and their electrochemical reactions. A. P. Martirosov and T. A. Kryukova. (Inst. Phys.-Chem., Acad. Sci. U.S.S.R., Moscow). Zhar. Fiz. Khim. 27, 581-65 (1953); cf. CA 45, 10941.

The polarization curves (current strength i against potential φ referred to N.HgCl electrode) on drops of tangent movements in the drop surface (a) in the presence of such movements. The i in cathodic deposition of Cu, Cd, or Zn was lowered by surface-active addins, e.g., 0.05M 1-pentanol (I) in 10^{-3} N Na₂SO₄ + 0.0001N CuSO₄, increased 10-fold at $\varphi = -0.425$ v. This depression was smaller in nitrate salts, and remained still in the following order: ClO₄ > Cl⁻ > Br⁻ > I⁻. Thus, there was no depression by I when 10^{-3} N KCl was the background electrolyte. Addin of 0.07N KBr to 0.02N Na₂SO₄ also eliminated the depression. The effect of I on the polarization curves of Cd and Zn was smaller than for Cu because of the larger neg. needed. Bu₄N₂I and Bu₄N₂SO₄ (II) lowered i also for Cd and Zn; chlorides counteracted this on Cd but were inactive on Zn.

The i in cathodic reduction of Cu²⁺ was depressed by I, Bu₄N₂I, or stearic acid (III) while II was inactive. However, II caused depression of i in the presence of a small excess of KBr. The i in the electroreduction of cyclohexene oxide was lowered by I, II, or III and the depression was independent of the background electrolyte. In all the above cathodic processes, the effect of the surface-active addin was negligible at greater polarizations at which absorption of the addins was small. The i in 10^{-3} N Na₂SO₄ + 0.0001N CuSO₄ was 47% greater than the limiting diffusion current i_0 . Small a min. (below 10^{-3} N) of II lowered i to i_0 (φ at which i between -0.3 and -1.4 v.). Greatest decrease of i (depressed 1.6 times) was in 10^{-3} N Na₂SO₄ + 0.0001N CuSO₄ + 0.1M K₂Cr₂O₇ + 0.0025M Na₂SO₃. In 10^{-3} N Na₂SO₄ + 0.0001N CuSO₄ + 0.1M K₂Cr₂O₇, where i is concerned not depressions but loss of i , i.e., cathodic soils, only the movement of the drop surface was influenced by II. At very small and very large φ , II had no effect on i . The smallest at a const. concn. c of the surface-active addin, way the longer the C chain of the addin. This is the main effect of 10⁻³ amp. was observed in approx. 0.01N EuOH and 0.0001N 1-hexanol both in 10^{-3} N Na₂SO₄ + 0.0001N CuSO₄. II was a little more active than octanol. The φ at which i passed through a min. little depended on the chain length but was more neg. the greater c . If it was -0.4 and -0.1 v. when c of I was 0.005 and 0.1M, resp. The effect of addins on i could not be due to complex formation or to a film impermeable for ions; it is best accounted for by assuming that the addins retarded the discharge of ions.

J. J. Birkemeyer

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B. ~~ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED BY THE GOVERNMENT OF~~

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USSR/Electrochemistry

B-12

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26336

Author : T.A. Kryukova

Title : Retardation of Tangential Movements of Mercury Drop Surface
by Charges of Double Electric Layer and Shape of Polarographic
Curve.

Orig Pub : Zh. fiz. khimii, 1956, 30, No 8, 1792-1800

Abstract : The ratios of speeds (v) of the tangential movement of Hg drop surface retarded and not retarded by the charges of the double electric layer were computed and compared with experimental data of reactions of Hg^{2+} , Cd^{2+} and O_2 reduction on the background of KCl in various concentrations. The computation shows that in case of the presence of maxima (M) of the 2nd type, v has the maximum value at the potential of the zero charge (PZC). The lower the solution concentration is, the more rapidly v decreases receding from PZC. The retardation by surface charges is somewhat greater than the computed. In concentrated solutions the retarding by surface charges is not great, and the current decrease with the potential rise (φ) is little. Therefore, the shape of a wave with M is little different from that of a wave with id, especially without adjustment for the

Card : 1/2

USSR/Electrochemistry

B-12

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26336

charging current. In less concentrated solutions (1 and 0.1 n. KCl), i_d Cd²⁺ decreases so rapidly together with the rise of φ , that the M-s of the 2nd type begin to look as the M-s of the 1st type. The experiment shows that in case of M-s of the 1st type, the course of the curve (i, φ) is determined by the character of the dependence of the surface mobility Z on φ . Z attains its maximum value $Z_{(\max.)}$ at φ , which is the farther away from PZC, the greater the solution concentration is. The current starts to decrease with the decrease of Z. Consequently, the peak of the M of the 1st type must be at the same φ as Z $(\max.)$. The comparison of φ for Z $(\max.)$ with the experimentally determined φ of the M peak confirms this deduction.

Card : 2/2

KRYUKOVA, T. A.

"On Polarographic Maxima of the First Class and Maxima Inversion."

paper presented at the Colloquium on Polarography, 3-7 June 1957, Erich-Muller-Inst.,
Electrochemistry and Physical Chem, in Technischer Hochschule Dresden. (not read by
author)

Chemische Technik, No. 1, Jan. 1958.

5(2)

PHASE I BOOK EXPLOITATION

SOV/3139

Kryukova, Tat'yana Aleksandrovna, Sof'ya Il'inichna Sinyakova, and
Tat'yana Vasil'yevna Aref'yeva

Polyarograficheskiy analiz (Polarographic Analysis) Moscow,
Goskhimizdat, 1959. 772 p. Errata slip inserted. 5,000
copies printed.

Ed.: G. Ye. Lur'ye; Tech. Ed.: Ye. G. Shpak.

PURPOSE: This book is intended for the staff of chemical research
and analysis laboratories of scientific research institutes,
schools of higher learning, and industrial enterprises.

COVERAGE: The book presents the theoretical and experimental
principles of polarographic analysis and describes the con-
struction of polarographs and the techniques of polarographic
measurements. It describes polarographic analysis with dropping
mercury electrodes, including amperometric titration, polaro-
graphic adsorption analysis, and oscilloscopic polarography. It
also describes various methods for the determination of organic
and inorganic cations and anions. The authors thank Professor

Card 1/49

Polarographic Analysis

SOV/3139

B. N. Kabanov; Professor Yu. S. Lyalikov; E. S. Levin, Candidate of Chemical Sciences; and M. B. Bardin, Candidate of Chemical Sciences. Extensive bibliographies of Soviet and foreign literature accompany each chapter.

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Card 2/49

POPOVA, T. I.; KRYUKOVA, T.A. (Moscow)

Polarographic peaks of the first order. Part 1: Dependence of the peak current on the concentration of the substance being reduced and on the electric conductivity of the solution. Zhur.fiz.khim. 34 no.6:1226-1233
Je '60. (MIR 13:7)

1. Akademiya nauk SSSR, Institut elektrokhimii, Moskva.
(Reduction, Electrolytic) (Polarography)

KANAL'KEI, P. I.; KRYUKOVA, T. A.; PRECHTENKAYA, G. G.

"Ispol'zovaniye etnograficheskikh kolletsiy kak istochnika v nauchno-issledovatel'skoy rabote (na opyte Gosudarstvennogo muzeya etnografii narodov SSSR)."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

LIPCHIN, N.N.; KRYUKOVA, T.G.; OSLON, N.L.

Effect of the rate of heating on the phase recrystallization
of hardened 60C2 steel. Metalloved. i term. obr. met. no.8:
5-8 Ag '64. (MIRA 17:10)

1. Permskiy politekhnicheskiy institut.

KRYUKOV, T. V.

5689 . Cgurtsy Na Sakh. line. Yuzhno-Sakhalinsk, Gaz. (Sov. Sakhalin), 1954
23s Ill. 20 sm. (Sakhalinskiy Filial Akad. Nauk SSR. Nauch-Popul. Seriya).
1,500 kz. 60k-(55-1473) 635.63(57.343.4)

SO: Knizhanaya, Letopis, Vol. 1, 1955

USSR/Cultivated Plants - Potatoes, Vegetables, Kitchens.

H-5

Abs Jour : Ref Zhur - Biol., No 9, 1959, 39312

Author : Vindina, T.A., Kryukova, T.N.

Inst : Sakhalin Complex Scientific Research Institute AS USSR

Title : The Local Sakhalin Cabbage Variety.

Orig Pub : Sodachi. Sakhaliisk. konglchon. n.-i. in-ta, AN SSSR, 1956, vyp. 4, 102-106.

Abstract : Local cabbage varieties were studied by the Sakhalin branch of AN USSR and a late frost-resisting variety was isolated. This variety is characterized by the following data: average weight of the head - 6-7 kg; vegetative period: 160-190 days; ratio of height of head to its diameter: 0.60 - 0.75; sugar content: 6.7% of its raw weight (against 3.6% for the Slava variety). Flitter

Card 1/2

- 69 -

USCR/Cultivated Plants - Potatoes, Vegetables, Melons.

II-5

Abs Jour : Mar 27ur - Biol., No 5, 1956, 39312

heads are distinguished by greater saccharinity. Their
storng capacity and taste are good. -- V.S. Simal'ks

Card 2/2

ZIMINA, T.A.; KRYUKOVA, T.N.

Wild onions of Sakhalin and outlook for their introduction into
cultivation. Bot.shur. 45 no.6:844-861 Je '60.
(MIRA 13:7)

1. Sakhalinskiy kompleksnyy nauchno-issledovatel'skiy institut
Akademii nauk SSSR, Nomo-Aleksandrovsk na Sakhaline.
(Sakhalin--Onions) (Plant introduction)

ZAVILOVICH, M.; KRYUKOVA, T.; KATSHAN, L. (Leningrad)

From the specialized state farm to the store. Sov. torg. 33 no.5;
10-12 My '60. (MIR4 13:11)
(Leningrad--Vegetable trade)

PIVOVAROV, A.; KRYUKOV, T., assistant.

Self-service in a vegetable and fruit store. Sov. torg. 33
no. 9:28-30 b '60.
(Hld. 14:2)

1. Direktor magazina sovkhoza "Udarnik," Leningrad (for Pivovarov).
2. Institut sovetskoy torgovli im. Fr. Engel'sa (for Kryukova).
(Leningrad--Self-service stores)

ZIMINA, T.A.; KATSNEL'SON, I.A.; ZHILIN, S.I. | Prinimali uchastye:
KRYUKOVA, T.N., mladshiy nauchnyy sotrudnik; KOMODANOVA, R.I.,
laborant.

Phytocidal characteristics of onion, garlic, and some other
plants of Sakhalin. Izv. SO AN SSSR no.4 Ser. biol.-med.nauk
no.1: 47-52'63.
(MIRA 16:8)

1. Sakhalinskiy kompleksnyy nauchno-issledovatel'skiy institut
Sibirskogo otdeleniya AN SSSR.
(SAKHALIN-PHYTOCIDES) (SAKHALIN-ALLIUM)

ZIMINA, T.A.; KRYUKOVA, T.N.; CHUMAKOVSKIY, N.N.

Development of new forms and anomalies of some local corn populations in Sakhalin. Izv. SO AN SSSR no.8 Ser. biol.-med. nauk no.2:7-14 '64 (MIRA 18:1)

1. Sakhalinskiy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo otdeleniya AN SSSR, i Sakhalinskiy pedagogicheskiy institut.

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137-58-6-11967

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 111 (USSR)

AUTHORS: Golutvin, Yu.M., Kryukova, V.N., Troitskaya, L.N.,
Malysheva, T.V., Butorin, K.K.

TITLE: Chemical Dressing of Manganese Ores of the Ikat-Garga
Deposit (Khimicheskoye obogashcheniye margantsevykh rud
Ikat-Garginetskogo mestorozhdeniya)

PERIODICAL: Izv. vost. fil. AN SSSR, 1957, Nr 7, pp 31-39

ABSTRACT: Three methods of chemical dressing of Mn ores by leaching are tested: 1) H_2SO_4 , 2) SO_2 , and 3) $(NH_4)_2SO_4$. It is shown that concentrates containing 52.2, 58, and 50%, respectively, with yields of 27.9, 23.6, and 25%, may be obtained. The presence of large amounts of Ca in the ore necessitates an elevated consumption of leaching agents.

- N.P.
1. Manganese ores--Processing 2. Sulfuric acid--Effectiveness
3. Sulfur dioxide--Effectiveness 4. Ammonium sulfate--Effectiveness
5. Calcium--Properties

Card 1/1

1. Vostochno-sibirskiy filial am. J. S. R.

GOLUTVIN, Yu.M.; TROITSKAYA, L.N.; KRYUKOVA, V.N.

Thermographic investigation of clays from the Cheremkhovo de-
posits. Izv.Sib.otd.AN SSSR no.11:156-159 '58. (MIRA 12:2)

1. Vostochno-Sibirskiy filial AN SSSR.
(Cheremkhovo Basin--Clay--Analysis)

RUBTSOV, V.A.; SERGEYEV, V.I.; LUKANOVA, M.V.; KRASIL'NIKOV, A.I.;
KRYUKOVA, V.N.; BALYUTINA, O.I.

Handbook on flax spinning. Reviewed by V.A.Rubtsov and others.
Tekst.prom. 18 no.10:63-65 0 '58. (MIRA 11:11)

1. Zaveduyushchaya tekhnicheskoy bibliotekoy Orshanskogo l'no-kombinata (for Balyutina).
(Flax)

8/031/60/000/011/003/008
A161/A133

AUTHORS: Kryukova, V. N., Tseft, A.L.

TITLE: Cementation of nickel and cobalt from chloride solutions by metallic iron

PERIODICAL: Akademika nauk Kazakgskoy SSR, Vestnik, no, 11, 1960, 24 - 33

TEXT: The purpose of the described investigation was to study the reactions in contact reduction and find out the optimum conditions for a more complete separation of nickel and cobalt from solutions. Reactions were studied in a glass vessel with a hydraulic seal and a mixer. The vessel with the solution was placed into a water thermostat with automatic temperature control, and certain quantities of powder iron were added to the solution. The solid matter was filtered off after the experiment, and the content of metal ions not involved in reaction and the pH of the solution were measured. AAN-5 (LP-5) potentiometer with a glass electrode was used for pH measurements; nickel was determined by the volume method with dimethyl glyoxime and cobalt by the colorimetric method with nitroso-R-salt. The nickel content in the solution was 10.01 g/liter, the cobalt content 0.46 g/liter; the acidity of initial solution was 1.5 and 2 pH;

Card 1/3

Cementation of nickel and cobalt ...

S/031/60/000/011/003/008
A161/A133

iron powder with 0.05 mm grain was reduced by hydrogen. The effect of temperature, time, quantity of metallic iron and acidity of the solution was studied. The cementation degree of nickel was low in room temperature but increased with rising temperature and reached 91.1% at 100° C, with a slowing down of the process after some time at 80 and 100°, which may be explained by slow ions diffusion through the nickel film in the end phase of the process. Higher additions of powder iron accelerated the reaction and increased the degree of cementation. The acidity of the solution dropped and reached 3.8 - 3.9 pH in separate cases. The process kinetics can be described by the equation

$$\alpha = 1 - e^{-kt} \quad (3)$$

where α is the quantity of matter that participated in the reaction, and t - the time from the start of reaction. The cementation of cobalt was very low at room temperature, increased with rising temperatures and after 30 min at 100° it slowed down drastically, apparently due to the formed cobalt film. Combined cementation of nickel and cobalt was studied in a solution corresponding to the conventional hydrometallurgical processing of matte nickel, at 109°C. The cementation degree was the same as of nickel and cobalt separately. It was found that

Card 2/3

Cementation of nickel and cobalt

S/031/60/000/011/003/008
A161/A133

the cementation process can be accelerated by using a finer powder, increasing the excess of powder in the solution, and by using mechanical grinding, i.e., a rubbing mixer removing the film of precipitated metal in the course of cementation process. Cobalt precipitation reached 90% with a mechanical rubbing mixer, and nickel was precipitated nearly completely. The acidity of solution had some effect - precipitation was higher at constant acidity, apparently due to the porosity of the forming film facilitating the ions diffusion. Conclusions: The reactions at low temperatures are in the kinetic phase and meet the equation of the first order; the activation energy of nickel is 10,300 cal/mole, and of cobalt 10,850 cal/mole; at 100°C the process is in the diffusion phase, and the deposited metal film resists the diffusion; the reaction can be made more complete by increasing the excess of iron, using finer iron powder, and using mechanical rubbing and constant acidity of solution; practically complete extraction of nickel and cobalt is possible from solutions containing both when the forming solid phase is rubbed off mechanically in the process. There are 7 figures and 6 Soviet-bloc references.

Card 3/3

TSEPT, A.L.; KRYUKOVA, V.N.

Process of the hydrochloric acid and salt leaching of nickel matte.
Trudy Vost.-Sib.fil. AN SSSR no.25:69-75 '60. (MIRA 13:9)
(Nickel)

KRYUKOVA, V.N.; TSEPT, A.L.; SERIKOV, A.P.

Precipitation of nickel and cobalt from a ferrous chloride solution.
Trudy Vost.-Sib.fil. AN SSSR no.25:76-82 '60. (MIRA 13:9)
(Nickel) (Cobalt)

KRYUKOVA, V.N.; TSEFT, A.L.

Study of anodic polarization during the electrolytic oxidation of
iron. Trudy Vost.-Sib.fil. AN SSSR no.25:83-88 '60. (MIRA 13:9)
(Polarization (Electricity)) (Iron)
(Electrolysis)

BUYANOV, V. I.; KRYUKOVA, V. N.; GUBEYDULINA, A. V.

Contact reduction of tin from a chloride solution by pulverized
zinc. Trudy Vest. Sib. fil. AN SSSR no. 41:19-22 '62.
(MIRA 15:10)

1. Vostochno-Sibirskiy filial Sibirskego otdeleniya AN SSSR.

{Tin—Electrometallurgy}
(Cementation(Metallurgy))

KRYUKOVA, V. N.

Kinetics of indium cementation from chloride solutions by
pulverized zinc. Trudy Vost. Sib. fil. AN SSSR no.41:23-28
'62. (MIRA 15:10)

1. Vostochno-Sibirskiy filial Sibirskego otdeleniya AN SSSR.

{Indium—Electrometallurgy)
(Cementation(Metallurgy)}

KRYUKOVA, V.N.; TSEFT, A.L.

*Kinetics of the dissolution of nickel and iron metals in
solutions of hydrochloric acid and ferric chloride. Trudy
IPI no.18:40-47 '63. (MIRA 17:6)*

KRYUKOVA, V.N.; RUMYANTSEV, Yu.V.; BOLOMDZ', F.M.

Investigating the sulfatizing roasting of Transbaikalia copper ores. Report No. 1. Trudy IPI no.18:56-64 '63.

Investigating the sulfatizing roasting of Transbaikalia copper ores. Report No. 2. Ibid.:65-70 ' (MIRA 17:6)

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000826920007-7

KRIUKOVA, V.N.; TSEFT, A.L.

Complex hydrometallurgical processes of nickel matte. Trudy
Inst.met.i obog. AN Kazakh.SSR 11:5-9 '64.

(MIRA 18:4)

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000826920007-7"

KRYUKOVA, V.S.

Exercise therapy for patients with spastic paraplegias and parapareses of the lower extremities following the removal of a spinal cord tumor. Vrach. delo no.6:142-143 Je'63.

(MIRA 16:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut neyrokhirurgii.

(SPINAL CORD — TUMORS) (PARAPLEGIA)
(EXERCISE THERAPY)

Kryukova, Ye. I.

Kryukova, Ye. I. - "Secretion changes of the gastric glands of the stomach during hypoglycemia," Skornik trudov (Voyen.-med. akad. im. Kirova), Vol. XLIII, 1949, p. 119-25

SC: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949.)

MEZHESLOVA, A.Q., kand. med. nauk; REUTT, Ye.S.; KRYUKOVA, Ye.I.

Effect of the "regenerator" hyaluronic acid preparation in skin diseases. Vest. derm. i ven. 33 no. 2:59-60 Mr-Ap '59. (MIRA 12:7)

1. Is klinicheskoy bol'nitay (nach. - prof. G.M. Novikov).
(HYALURONIC ACID, ther. use,
skin dis. (Rus))
(SKIN DISEASES, ther.
hyaluronic acid (Rus))

KUSHNIRENKO, M.D.; KRIVKOVA, Ia.V.

Changes in the suctorial power of apple, pear, plum and peach
leaves depending upon the soil moisture. Izv.AN Mold.SSR no.4:
47-52 '63. (MIRA 18:1)

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000826920007-7

KRYUKOVA, Yu.B.

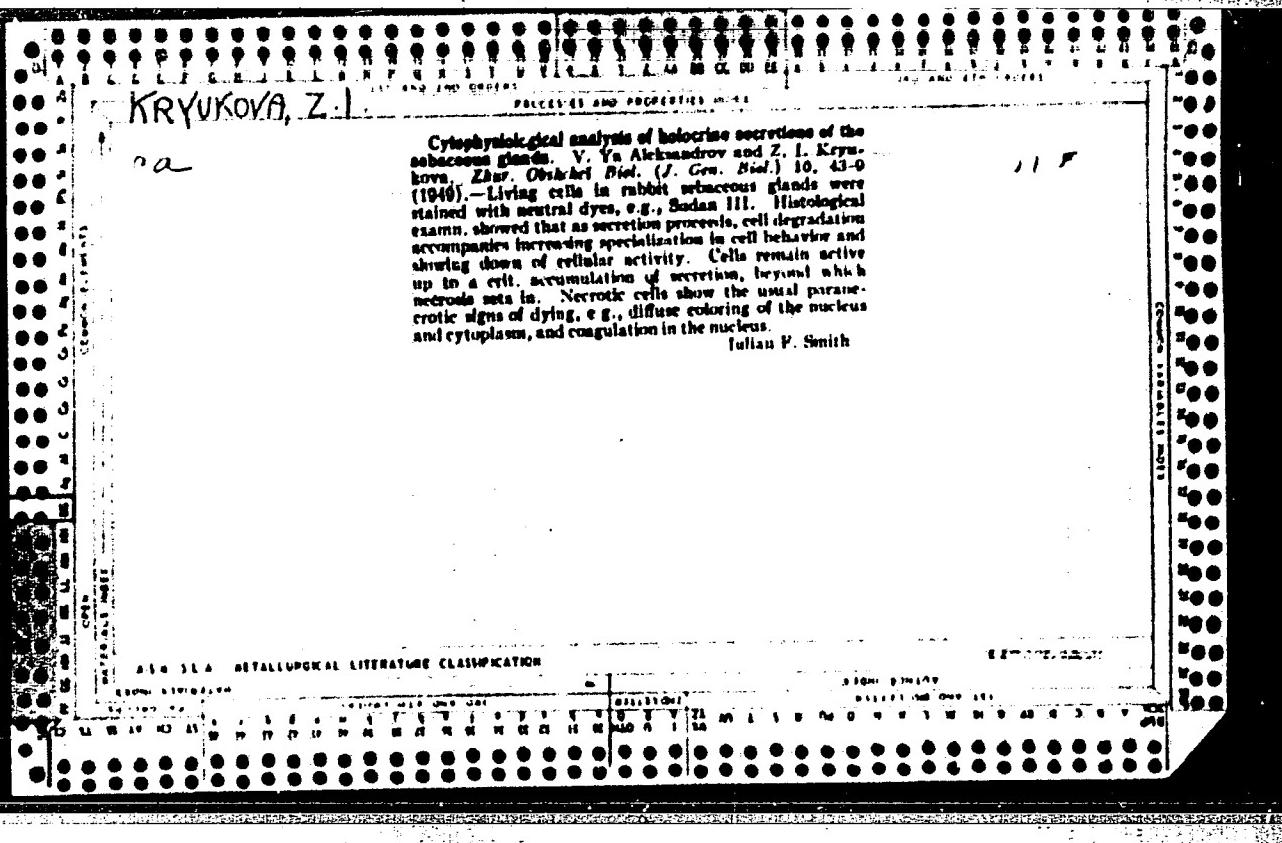
Sixth International Petroleum Congress. Neftekhimika 4 no.1;
176-100 Ja-5'64
(MIAA 1716)

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000826920007-7"

KRYUKOVA, Z.Y.

Division of the Crimean Steppes by land forms. Vest. LGU 15
no.6:106-113 '60. (MIRA 13:3)
(Crimea--Physical geography)



KRYUKOVA, Z.I.

ALEKSANDROV, V.I.; KRYUKOVA, Z.I.

Cytophysiological analysis of natural destruction of cell elements
in the organism. Izv. Akad. наук СССР. Сер. биол., Москва №.2:68-90
Мр-Апр '50. (CLML 19:2)

1. Of the Laboratory of Cytology, Department of General Morphology,
Institute of Experimental Medicine AS USSR.

Kryukova, Z.I.

USSR/General Biology - Biochemistry and Biophysics.

B-1

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 133.

Author : Z.I. Kryukova.

Inst :

Title : Cytophysiological Changes Upon the Stimulation of Skin Tissue with the Extract of Naphthalene Oil.

Orig Pub : Arkhiv anatomi, gistol and embriologli, 1955, 32, No 4, 23-28.

Abst : The action of naphthalene oil causes a prolific activation of the skin elements, a thickening of the epidermis, and an increase in the number of connective tissue cells. To clarify the character of the processes which take place in the protoplasm of the cells, pieces of skin from the ear of a rabbit preliminarily subjected for a period of several days to the action of naphthalene oil were extirpated, and the process of their vital pigmentation with neutral red (concentration 0.01 to 0.075% in Ringer

Card 1/3

Chair of Histology & Embryology - 1st Semenov Med Inst.

USSR/General Biology - Biochemistry and Biophysics.

B-1

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 133.

solution) was studied. A small piece of skin taken from the other ear of the same rabbit served as a control. Three to four days after smearing, the initially observed granular deflection of the pigment is changed by a diffused pigmentation of epithelial and connective tissue cells; judging by the color of the pigment, the pH of the tissues shifted toward acidity. The second series of experiments have shown that the application of weaker concentrations of the dye (0.025-0.01%) causes a granular pigmentation of the cells. The author thinks that the lowering of cell resistance and their reversed shift towards paraneerosis is the result of the action of the oil. Upon prolonged smearing the cells of the epithelium, ten to fifteen days later again acquire the capacity of granular binding of the pigment. The author notes the similarity between the described modifications and

Card 2/3

USSR/General Biology - Biochemistry and Biophysics.

B-1

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 133.

the effect of stimulation in the nerve cells and muscular fibers observed. In all mentioned cases, a stimulation of granule formation is noted in the initial phase; in the later stages, there is a shift towards diffused paranecrotic pigmentation.

Card 3/3

KRYUTOVA, Z.I. (Leningrad, Kirovskiy pr. d.69-71, kv. 59)

Effect of naphthalan petroleum extract on the development of skin injuries induced by roentgen rays [with summary in English]. Arkh. anat. gist. i embr. 35 no.1:82-87 Ja-F '58. (MIRA 11:4)

1. Iz kafedry gistolozii i embriologii (zav. - prof. G.S. Strelin)
I Leningradskogo meditsinskogo instituta im. I.P. Pavlova.
(ROENTGEN RAYS, effects,
on skin, eff. of petroleum prod. on develop. of inj.(Rus))
(SKIN, effect of radiations,
x-rays, eff. of petroleum prod. on develop. of inj.(Rus))
(PETROLEUM PRODUCTS, effects,
on skin inj. induced with x-rays (Rus))

KRYUKOVA, Z. M.: Master Tech Sci (diss) -- "Obtaining sulfate cellulose for fiber". Leningrad, 1959. 12 pp (Min Higher Educ USSR, Leningrad Order of Lenin Forestry Engineering Acad im S. M. Kirov), 150 copies (KL, No 14, 1959, 120)

PEREKAL'SKIY, N.P., doktor. tekhn. nauk; ANTONOVICH, L.N., kand. tekhn. nauk; KRYUKOVA, Z.M., kand. tekhn. nauk; KURILEV, Yu.V., inzh.; Prinimali uchastiye: Ivanova, V.I., mladshiy nauchnyy sotrudnik; ERUSNICHKINA, V.F., starshiy laborant; LOKSH, R., studentka diplomantka

Use of alkyl ketene dimers for paper sizing. Trudy LTITSBP no.10:15-26 '62. (MIRA 16:8)

(Sizing (Paper)) (Ketene)

MISHCHENKO, K.P., doktor khimicheskikh nauk; FLIS, I.Ye., kand.khimich. nauk;
BYNYAYEVA, M.K., kand.khimich. nauk; KRYUKOVA, Z.M., kand.khimich.
nauk; SALNIS, K.Yu., kand.khimich. nauk; BLOSHTEYN, I.I., inzh.;
DOBRYSHIN, K.D., inzh.; FISH, S.I., inzh.

Technology of the production of chlorine dioxide. Trudy LTITSBP
no.8:81-88 '61. (MIRA 16:9)
(Chlorine oxides)

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000826920007-7

DAZRAKUL'EV, N.P.; ANTONOVICH, I.N.; FRYAEVA, T.M.; RUDYLO, V.V.

Use of alkyl ketene dimers in paper sizing. Trudy INTRI. No. 12:224-
231 '64.
(XERX 16:8)

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000826920007-7"

KRYUKOVA Z. S.

AUTHORS:

Tarkovtsev, V. V., Rozenblyum, Ye. N.,
Kryukova, Z. S., Klebanova, F. M.

75-6-15/23

TITLE:

The Determination of Lead Sulphate in the Active Mass of Lead Storage Batteries (Ob opredelenii sulfata svintsa v aktivnykh massakh svintsovых akkumulyatorov).

PERIODICAL:

Zhurnal Analiticheskoy Khimii, 1957, Vol. 12, Nr 6, pp. 736-739
(USSR).

ABSTRACT:

The unsuitability of the soda method for the determination of $PbSO_4$ at a low lead content in the active mass of lead storage batteries is described. An incomplete solution of $PbSO_4$ occurs because of Na_2CO_3 whereby the results are lower.

It is recommended to treat the positive charged platelets with acid and the negative charged platelets with a mixture consisting of equal parts of $S(NH_3)_3COOH$ and $S(NH_3)_3COONH_4$. The proposed method is four- to five times shorter than the usual soda method.
There are 3 tables.

Card 1/2

The Determination of Lead Sulphate in the Active Mass of Lead
Storage Batteries. 75-6-15/23

ASSOCIATION: Institute of Scientific Research on Storage Batteries, Leningrad
(Nauchno issledovatel'skiy akkumulyatornyy institut, Leningrad).

SUBMITTED: October 6, 1956.

AVAILABLE: Library of Congress.

1. Lead sulfite-Determination lead mass
2. Storage batteries-Active

Card 2/2

KRYUKOV, A.V.; KRYUKOVA, Z.V.

Pyropes from the "Tergeshskaya" pipe. Mat. po geol. i pol. iskop. Kras.
kraia no. 3:131-140 '62.
(MIRA 17:2)

VINOGRADOV, Nikolay Vladimirovich; KRYUKOVSKAYA, B., red.; SIDERKO,N.,
tekhn. red.

[Lectures on psychiatry] Lektsii po psichiatrii. Minak, Izd-
vo "Belarus'", 1963. 187 p. (MIRA 17:1)